

Date: Wed, 25 May 94 04:30:27 PDT
From: Ham-Digital Mailing List and Newsgroup <ham-digital@ucsd.edu>
Errors-To: Ham-Digital-Errors@UCSD.Edu
Reply-To: Ham-Digital@UCSD.Edu
Precedence: Bulk
Subject: Ham-Digital Digest V94 #161
To: Ham-Digital

Ham-Digital Digest Wed, 25 May 94 Volume 94 : Issue 161

Today's Topics:

9600 bps radio modems (2 msgs)
Alpha-Numeric Paging Soft
Alpha-Numeric Paging Software
Apple 2 on Packet
baycom problem (2 msgs)
How to hook HT-202 to TNC?
How to run TCP/IP with Baycom?
need docs, Knight dmm kit
Radio BBS links LL BBS ?
Skinny Dip
TNOS and NETROM help needed.
TNOS and NEWS Center help needed.

Send Replies or notes for publication to: <Ham-Digital@UCSD.Edu>
Send subscription requests to: <Ham-Digital-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Digital Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-digital".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 24 May 1994 17:51:59 GMT
From: nothing.ucsd.edu!brian@network.ucsd.edu
Subject: 9600 bps radio modems
To: ham-digital@ucsd.edu

steve.diggs@tottrbbs.atl.ga.us (Steve Diggs) writes:
>We're getting the cart before the horse in this message thread. 9600
>packet is an IF interface; squelch control is a AF section function.

Not at all. 9600 bps as used by the K9NG et al modems is simply direct
FSK; it appears at the FM radio's detector as audio with a maximum

component at 4800 Hz. I suspect you mean 'detector' instead of 'IF'.

>audio at the IF is always unsquelched, and rightly so.

Yes, you'll need unsquelched audio for the demodulator in the modem. On most radios, you can pick this off the output of the detector chip. With Motorola Mitrek and Micor radios, the buffered (not NOT deemphasized) audio available on the control connector on the front of the radio works just fine!

>Further,

><anything> do to with the AF section screws 9600 transmissions up due to
>the normal pre-emphasis and de-emphasis curcuitry in the AF section.

Yes, the normal audio path for the transmitter isn't going to pass the 4800 Hz audio that is the digital signal. You need to go directly into the modulator. In the Mitrek, you can do this by shoving the modem output audio directly into the channel element - you just cut out one resistor (R515?) to isolate the channel element (which contains the modulator) and insert the audio there. There are spare pins on the control connector you can use to get the signal into the radio without having to drill any holes.

>seems that 9600 packet audio requires it's own custom de-emphasis based
>on the exact discriminator used in order to get the eye pattern right to
>the modem. Hence the difficulty of getting the IF interface right.

If you wish to be extreme, perhaps. I find that I get quite nice eye patterns by simply keeping the transmit deviation down around 2 to 2.5 kHz max so that I don't rub against the edges of the receiver IF.

>So...bottom line is...doesn't matter how fast/slow the squelch
>is...you're way on the IF side of the squelch curcuit anyway.

But that's not the point. If you are building a repeater, it is not really a bad design to use the radio's SQUELCH to control the transmitter PTT and timers. You can easily speed up the squelch - just make a few of the timing capacitors in the squelch circuit a bit smaller or remove them entirely - and the radio will key up faster than the current modem's carrier detect circuit can operate.

There is one caveat here: most squelch circuits work by using a high-pass filter to measure noise from the detector and use that to decide when a signal is quieting the receiver. You have to make sure that your squelch circuit's high-pass filter is listening well above the 4800 Hz of the 9600 bps signal, which may mean making some caps a bit smaller here and there.

>I clearly state here that this is an area for ongoing discussions, as I
>am not satisfied with the work I've done so far in 9600 packet, so any
>help/comments/objections is appreciated.

I have one point I've not yet decided upon: what to transmit during the
repeater's delayed-drop ("hang") time. There isn't a simple universal
answer, I suspect.

If users use K9NG modems for the repeater client stations, I have to
transmit random noise during the DDO, because otherwise the user modems
will detect carrier and will hold off transmissions until the repeater
carrier drops. If I am using one of the better modems (G3RUH,
TAPR-new) in the repeater's repeat circuits, they will NOT retransmit
noise in the absence of carrier.

The best solution I've come up with was to simply have a ZERO DDO - in
other words, no hang time at all. Since the repeater is a modified
Mitrek, there are no moving parts, and I really can do this, at the
sacrifice of some keyup delay. The trick there is to keep the TX channel
element powered continuously, so that it doesn't take any time to start.
The Mitrek has some power sequencing circuitry in it to ensure that the
transmitter doesn't produce power until after the antenna relay has
changed over; I'll have to bypass that too.

I'm still fiddling too, and I'm interested in others experiences as well.

- Brian

Date: Tue, 24 May 1994 23:50:24 GMT
From: ihnp4.ucsd.edu!library.ucla.edu!csulb.edu!csus.edu!netcom.com!
wb6w@network.ucsd.edu
Subject: 9600 bps radio modems
To: ham-digital@ucsd.edu

Another issue that is of some criticality to 9600 ops is frequency
netting. Most of the amateur FM radios I've looked at have carrier
frequencies on the order of a few hundred Hz. My own 9600 radio is
a multi-mode, so I can tune in 100Hz steps - something the usual FM
radio can't easily do.

By experimenting with some of the locals, we found that a 200 Hz error
between TX & RX (100Hz each) will blow the channel reliability to
kingdom come. A 400Hz error will render the channel unusable.

It is not very difficult to "net" most synthesised or xtal radios,

...*BUT*...

you have to know to do it. (I haven't seen this particlar kink mentioned very often on here - so here it is again!) 73 de Glenn wb6w@netcom.com

Date: 24 May 1994 17:30:20 -0400
From: ankh.iaa.org!mary.iaa.org!not-for-mail@uunet.uu.net
Subject: Alpha-Numeric Paging Soft
To: ham-digital@ucsd.edu

IO>Can anyone help me find a site to download or purchase cheaply
IO>a alpha-numeric paging program for use on a msdos/modem computer and
IO>a comercial paging system.
IO>Any help would be greatly appreciated.
IO>Send responses to io70310@maine.maine.edu
IO>Thanks in Advance
IO>Chuck McMahan

Try to find an older copy of Sidekick (by Borland I think). It had an alphanumeric pager utility in there. I don't know if there is a newer version or whether this program is still marketed?

I had started to write a program to do this, but like many of my programming projects, it bacame 80% done before I lost interest. If you are interested in the program and can program in Turbo Pascal, I could prolly get it to you.

Tom
denglet1@iaa.org

* SLMR 2.1a *

Date: 24 May 1994 16:26:42 GMT
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!wupost!udel!news.sprintlink.net!bga.com!patm@network.ucsd.edu
Subject: Alpha-Numeric Paging Software
To: ham-digital@ucsd.edu

Chuck McMahan (IO70310@MAINE.MAINE.EDU) wrote:
: Can anyone help me find a site to download or purchase cheaply
: a alpha-numeric paging program for use on a msdos/modem computer and
: a comercial paging system.
: Any help would be greatly appreciated.

: Send responses to io70310@maine.maine.edu
: Thanks in Advance
: Chuck McMahan

I am not aware of share/free ware to do this but I know that any comm program can access the paging terminal. Ask the paging co for the terminal access number, just dial it as you would a BBS, etc., but in my experience the paging co's usually use 300 or 1200 bps. It will then ask for "ID=" and this is usually just the name of the paging co (e.g. MCCA), then give the telephone no. of the pager (no area code seems to necessary) and then the message Works great for occasional use although for heavy use a dedicated program would be preferable.

Pat McGuire WA8PLR
Austin TX

Date: Tue, 24 May 1994 12:01:05 GMT
From: ihnp4.ucsd.edu!swrinde!gatech!usenet.ins.cwru.edu!nigel.msen.com!zib-berlin.de!uni-paderborn.de!urmel.informatik.rwth-aachen.de!newsserver.rrzn.uni-hannover.de!u9313001@network.ucsd.edu
Subject: Apple 2 on Packet
To: ham-digital@ucsd.edu

Jeffrey D. Angus (jangus@skyld.grendel.com) wrote:

: In article <1994May23.163522.6779@newsserver.rrzn.uni-hannover.de>
u9313001@qub.ac.uk writes:

: > Anyway the main point is does anyone anywhere know of any software for the
: > apple 2 that allows it to run packet WITHOUT the use of a Super Serial Card
as
: > the are pretty hard to come by. The apple has a perfectly good Game I/O
: > connector and I do not see why it could not be implemented to use a modem
: > such as Baycom. I am seriously considering writing my own software if I do
not
: > find some, and I am also considering writing similar program for the
Spectrum
: > with an Interface 1 to use its' serial port and microdrives. Perfectly
suited
: > computers if you ask me, the C64 has it why can't the speccy or the Apple.
: >

: To the best of my knowledge there ain't none. (Explains the shortage!)

: What you want to do is find "Poor Man's Packet" I believe it was released
: with the source code. (The source was available when it was first released

: via 73 magazine).

: The source code (and a hardware reference manual) will show you how it's
: done.

Thanks very much, I will have a look at that software as I know
where I can get a copy, it will at least get me started.

However next question that should be in the Apple2 newsgroup is
Does anyone know where to get a copy of the C programming language with
documentation for the Apple (pascal would do)

Thanks

Alan

Date: Tue, 24 May 1994 11:11:48 GMT
From: ihnp4.ucsd.edu!agate!usenet.ins.cwru.edu!news.csuohio.edu!
sww@network.ucsd.edu
Subject: Baycom problem
To: ham-digital@ucsd.edu

JohnCase3 (johncase3@aol.com) wrote:

: In article <1994Mar23.101051.26057@ucl.ac.uk>,
: donnett@anatomy.ucl.ac.uk (Jim Donnett) writes:
:
: >I've just put together a Baycom modem.
: >but nothing seems to be received.
:
: I just recently set up my Baycom and had several days of frustration
: with not being able to receive. It turned out that I was using a
: rubber duck on the HT and the signals were simply not strong enough!!
: 73's John,WB2YGF - JohnCase3@aol.com

If you are using a 9-to-25 pin data line adapter, use an ohm meter to
determine if all pins are fed through that adapter. I had the same problem
as you and found that a number of my adapters did not feed all the pins
through. Once I found a 9-to-25 that worked (from my Logitech mouse), all
was well.

73,
Steve

N08M@N08M.#NEOH.OH.USA.NA

ag807@cleveland.freenet.edu

Date: Tue, 24 May 1994 11:54:31 GMT
From: ihnp4.ucsd.edu!agate!usenet.ins.cwru.edu!nigel.msen.com!zib-berlin.de!uni-paderborn.de!urmel.informatik.rwth-aachen.de!newsserver.rrzn.uni-hannover.de!u9313001@network.ucsd.edu
Subject: baycom problem
To: ham-digital@ucsd.edu

An good way to make the baycom modem "hear" more anmd if you also suffer from a lot of rejects being sent and recieved, is to link the unused gate input in the 74HC14 chips input to ground. This makes the modem more stable. Also have you set up the recieve pot, as it does not necessarily have to be 2.7V fiddle and see. I use a baycom modem, with baycom, Gp, and Sp6 and it hears signals that don't lift the needle. Baycom program itself is not the greatest hearer, try SP6 with Tfpcx V1.10 or above (GP V1.161). Only snag is u need an EGA display or above. SP6 is very ike baycom, and if you a want a copy I'm sure I can arrang it. A lot more versatlle though.

Alan (u9313001@qub.ac.uk)

Date: Tue, 24 May 1994 18:22:54 GMT
From: ihnp4.ucsd.edu!library.ucla.edu!csulb.edu!nic-nac.CSU.net!charnel.ecst.csuchico.edu!olivea!news.bu.edu!att-in!cbnewsm!hellman@network.ucsd.edu
Subject: How to hook HT-202 to TNC?
To: ham-digital@ucsd.edu

In article <769741451snx@skyld.grendel.com>, jangus@skyld.grendel.com (Jeffrey D. Angus) writes:

>
> In article <2r8h2n\$P13@epic.truevision.com> davids@truevision.com writes:
>
> >
> > I am trying to help a friend hook his Radio Shack HT-202 to a TNC. It does
> > not show the connections in his manual. Do I need to put any resistors or
> > caps in any of the lines? Any help would be appreciated.
> >
> > -David N9PGH
> > davids@truevision.com
> >
> >
>

> Use the example in the TNC manual for any ICOM handheld. 2AT 3AT 4AT etc.
>
>

Almost! Use the example for YAESU! (The difference is the resistor value.
the HTX 202 requires 2.2KOhm.)

Shel Darack WA2UBK dara@physics.att.com

Date: 24 May 94 08:41:17 CST
From: eng.iac.honeywell.com!The-Star.honeywell.com!centurio.mavd.honeywell.com!
skyler.mavd.honeywell.com!estey@uunet.uu.net
Subject: How to run TCP/IP with Baycom?
To: ham-digital@ucsd.edu

I have a PacComm Baymod-9 working nicely on AX.25. I understand that with
the-correct software I can run TCP/IP. What do I need and where can I get
it? A description, at a top-level, of how this all works would also be
appreciated. -

Carl Estey | Home Mail Address: 276 Walnut Lane
Amateur Callsign: WA0CQG | Apple Valley, MN 55124
| Business Address: Honeywell Inc.
Phone: Work (612) 954-7630 | Flight Systems & Test Operations M/S MN15-2370
FAX (612) 954-7495 | 1625 Zarthan Ave. S., St. Louis Park, MN 55416
Home (612) 432-0699 | Packet: WA0CQG @ WA0CQG.#MSP.MN.USA.NA
The nonsense here is of my own making - no one else would want credit!

Date: 24 May 94 12:51:44 GMT
From: news-mail-gateway@ucsd.edu
Subject: need docs, Knight dmm kit
To: ham-digital@ucsd.edu

>I bought a knight dmm kit at a local swap meet and it's missing the
>instructions to put it together. Unfortunately I don't have the model

not surprising..probably is the reason it's not put together yet...

>measurements as well as the
>regular volt, ohm, current. The docs would be great, but a phone #/address
>for knight or its distributor would suffice.

well, for Knight-kits it WAS Allied Radio before the take-over by Tandy
Corporation. Then you also say it's a DMM (not a VOM..) so that makes it

recent.

Try the local radio shack....it's a long shot, but they might be able to do something for you.

regards,

bill wb9ivr
rockwell avionics/collins

Date: 24 May 94 20:00:54 GMT
From: news-mail-gateway@ucsd.edu
Subject: Radio BBS links LL BBS ?
To: ham-digital@ucsd.edu

Hi there,

I dont know if this is the correct list for ask about the subject. Pse, forgive me if so.

I've a f6fbb+bpq BBS running and a modem port with a Zoltrix 14400 modem. The last one would be better used if a full LL BBS were activated there. I guess a software like Quickbbs or RemoteAccess as a good deal. However, for hams, the fbb would be lost thru its phone access. So, I'm curious about:

- Is there a way to get linked fbb and Quickbbs or RemoteAccess (of course, the modem would out of fbb control) ? For instance, the privilege on LL BBS would be set to hams in such way they could "go" to fbb and vice-versa. Sounds like a crazy idea?
- if the above configuration is not appropriated to the idea, what set up could I do to joins both "things"? Some time ago, I saw some headers in the radio bbs traffic with the word "PHONE", below or above another "true" line, both with the same callsign. I guess that was made automatically.

Can someone help me?

Many thanks in advance es 73's

ps: if this list is the wrong place, please, email me directly.

Luiz Catalan - PP5AQ
packet: PP5AQ@PP5AQ.SC.BRA.SA
internet: catalan@vortex.ufrgs.br

Date: 24 May 1994 04:42:12 -0400

From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!gatech!usenet.ufl.edu!
usenet.cis.ufl.edu!anshar.shadow.net!anshar.shadow.net!nobody@network.ucsd.edu
Subject: Skinny Dip
To: ham-digital@ucsd.edu

öyyyyyö yy öyy ÄyyÄ öyyyyyö öyyyyyö yy yy yyyyyyö ÄyyÄ yyyyyyö
yyöööö yyöyy· yy yy yy yy yy yyö öyy yy yy yy yyöööyy
···yy yy·yyö yy yy yy yy yy ·yyy· yy yy yy yy···
·yyyyy· yy ·yy ÄyyÄ yy yy yy yy ÄyÄ yyyyyy· ÄyyÄ yy

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18524 NW 67th Ave. #311
Miami, Florida 33015

Date: 24 May 1994 15:31:22 GMT
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!pipex!uknet!EU.net!ub4b!
idefix.CS.kuleuven.ac.be!news.fundp.ac.be!pbj@network.ucsd.edu
Subject: TNOS and NETROM help needed.
To: ham-digital@ucsd.edu

Hello,

I see there's no NETROM facilities into the TNOS compiled distribution.
I have some difficulties to recompile the TNOS with BC 3.1.
I ask if someone includes the NETROM facilities into the TNOS and if
it's possible to send me the exe.

I test the TNOS on a 286 and sometimes the system hanged and stop.
I assume it's probably due to a lack of memory (only 2048 K) because
the
system stop when there are some connected features and only 12000 Bytes
free.

Could you help me to boost the memory process.

Many thanks.

Pascal.

Date: 24 May 1994 15:45:41 GMT
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!pipex!uknet!EU.net!ub4b!
idefix.CS.kuleuven.ac.be!news.fundp.ac.be!pbj@network.ucsd.edu
Subject: TNOS and NEWS Center help needed.
To: ham-digital@ucsd.edu

Hello again,

I need some informations about the NEWS Center included into the Normal distribution of TNOS.

I have some troubles to configure the NEWS Center. Indeed, there are some files to place into the /spool/nnews/ but I don't have any informations to write these files.

Could some one help me to find some info about these facilities offered by the TNOS Distribution.

Pascal.

Date: Tue, 24 May 1994 18:37:16 GMT
From: world!dts@uunet.uu.net
To: ham-digital@ucsd.edu

References <1994May4.100155.15200@dxcern.cern.ch>,
<2q8erk\$qdc@hermes.acs.ryerson.ca>, <1994May23.061932.641@beacons.cts.com>≥@
Subject : Re: PacketRadio forLinux with Baycom ??

In article <1994May23.061932.641@beacons.cts.com> kevin@beacons.cts.com (Kevin Sanders) writes:

>In article <2q8erk\$qdc@hermes.acs.ryerson.ca> jeff@ee.ryerson.ca (Donald Jeff Dionne) writes:

>>

>>said that, however, there is a driver for Linux that does audio over the
>>pc speaker using a timer and some sort of PWM, and it works unless the
>>machine is busy with disk I/O or the like..... If you don't mind packet
>>loss when the machine is busy, and the machine coming to a halt when
>>packet is going on (as it does with the pc speaker), then perhaps I'm
>>wrong and it's worth a try.

>

>I experimented with a similar project; I wrote a driver which speeds up
>the system clock and samples one of those AEA fax interface units, to
>try to get HF fax running under Linux. I found that the IDE disk driver

508-779-0439

Compuserve: 74176,1347

End of Ham-Digital Digest V94 #161
